

Annual MSP Progress Report

Covanta Haverhill, Inc.
RR0128.008

Reporting Year 2006

In accordance with 310 CMR 7.08(2)(i) and the Material Separation Plan Guidance for Municipal Waste Combustors, please find attached the annual progress report for reporting year 2006. This report documents the efforts and progress to date on educating the public to the hazards associated with mercury and programs designed to facilitate removal of mercury from the waste stream.

Format for Mercury MSP Annual Reports

The Integrated Waste Services Association and its members, Covanta Energy and Wheelabrator Technologies, together with MA DEP, have agreed on the following reporting format for Annual Reports of their respective Material Separation Plans submitted to the MA DEP. For the 2006 Reporting Year (January – December 2006), facilities will submit Annual Reports containing information as described below.

I. Summary of Plan Activities

This summary may mirror the MSP Plan description, and would include notations of changes or alterations to that Plan description for the activity that do not rise to the level of an amendment to the plan. The description includes the following information where applicable:

- a. Summary/Goal of program/activity/task;
- b. Problems/issues experienced while trying to implement program/task;
- c. Changes to program between proposal and implementation, if appropriate;
- d. Manner of contacting appropriate audience, advertising, or providing notice of the program;
- e. Duration of program;
- f. Proposed number of individuals or organizations to be contacted, if appropriate for that task (from Plan description);
- g. Actual or estimated number of individuals or organizations contacted, if appropriate;

II. Spreadsheet Summary of Mercury-Containing Products Collected for each Community

The listing will be sorted as follows:

- Listing by community or targeted audience, e.g., town, school, etc.;
- Type of product collected;
- Quantity of each product collected, and weight of mercury collected by product type.

III. Spreadsheet Summary of Mercury-Containing Products Collected for each Program/Activity

The listing will be sorted as follows:

- Listing by program/activity/task, i.e., school cleanouts, thermometer exchanges household hazardous waste collection days;
- Total amount of products and total weight of mercury collected.

IV. Spreadsheet Summary of MSP Budget and Expenses

The Report shall provide, at a minimum, a summary of the budget for programs and actual program costs sorted as follows:

- Administration Costs;
- Education Costs of IWSA, listed by program;
- Individual Program/Activity/Task Costs;
- Other Costs broken out as appropriate.

I. Summary of Plan Activities

During 2006, Covanta Haverhill, Inc. (Covanta) continued the implementation of the third Material Separation Plan for Mercury Containing Products (MSP III). The MSP III, with minor variations, is a continuation of the goals and programs of the MSP II. As stated in the MSP III, various Hg collection and outreach activities continue to be conducted in the Covanta contract communities. In addition, other activities continue to be conducted with the hope of impacting and educating a broader population base. The following is an outline of the activities that were conducted between January 1, 2006 and December 31, 2006. Also included, where possible, is a quantification of the success of the activity. Where results of activities that were conducted are of a more subjective nature, we will attempt to indicate a level of success/participation.

1. Mercury Products Collection Routes

a) Goal of program

The primary objective of this program is to create and coordinate a collection route system between mercury recyclers (Veolia ES Technical Solutions, LLC or Complete Recycling Solutions) and the larger, non-residential, generators of mercury content bulbs (fluorescent, HID, Metal-Halide etc.).

b) Success\Problems encountered

In 2006, Covanta was able to set up 9 new pickups between mercury recyclers and 6 businesses /organizations. Problems that were encountered in this program continue to be the inability to speak one-on-one with the appropriate contact at each business and adequately explain our program.

c) Changes made

In 2006, the program was expanded to reach out to larger generators and try to get them on collection routes vs collection events. These larger generators (municipal departments, schools, businesses) were encouraged to ask for pickups at their locations to minimize labor/handling.

Special attention was paid to tanning salons. These locations are readily identified through board of health permits. Contact was made and both collection routes as well as collection events were offered.

d) Outreach conducted

Outreach in 2006 included visiting businesses both large and small. A total of 1,584 site visits were conducted in 2006 to promote this option.

In general, smaller generators of bulbs (36 or less) were invited to bring their bulbs/mercury products to collection events. Those businesses/organizations with greater than 36 bulbs were offered assistance in contacting Onyx for their mail in program, OnyxPac. Covanta offered to offset the partial cost of that program to interested companies. In other cases, on site pickups/collection route/scheduled pickups was discussed as another option.

This assistance was offered in all advertisements, at all outreach activities, and in notices hand delivered. In total, 73 advertisements were placed that offered this option and 1584 notices were hand delivered. However, Covanta did not see a major response for this program. It continues to be difficult to ascertain bulb recycling programs at large commercial operations.

e) Duration of program

This approach was used throughout 2006 in the target communities.

f) Proposed number of participants

Efforts were to maximize the number of participants as time permitted.

g) Number of individuals\ organizations contacted

Devoting a full day to visiting businesses in each community before each of the events resulted in outreach to many of the possible participants to this program as well. This also encouraged those businesses that had not collected bulbs in the past to set up a recycling program.

The count of visits made:

- Ayer - 163
- Danvers - 206
- Essex - 27
- Groton - 67
- Haverhill - 180
- Lawrence - 66
- Littleton - 237
- Lynnfield - 36
- Middleton - 188
- Reading - 112
- Stoneham - 95
- Wakefield - 176
- Salem, NH - 31

2. Mercury Product Collection Events

a) Goal of program

The goal of this program is to hold collection events to target and facilitate the collection of mercury and mercury bearing products from small businesses, municipal departments, and residents of the Covanta contract municipalities. While larger businesses were allowed to participate with a maximum of 36 bulbs, a separate program that was discussed earlier in this report was available and designed to more appropriately meet and satisfy their needs for the collection of mercury bearing wastes..

b) Success\Problems encountered

In general, Covanta observed an improvement in the number of mercury products collected through this program.

During 2006, all 15 of the Covanta contracted communities had extensive education/outreach conducted in their respective business communities. Collection events were conducted in a similar manner, with a mercury recycler truck and trained personnel present. A total of seventeen (17) collection events were held for these communities.

In April, June, August, and October, events were held in:

- Haverhill with adjoining communities of Lawrence and Salem, NH invited to participate.
- Middleton with adjoining communities of Lynnfield and Danvers invited to participate
- Wakefield with adjoining communities of Reading and Stoneham invited to participate
- Littleton with adjoining communities of Ayer and Groton invited to participate
- Essex had an event in July
- Both Harvard and Melrose DPW's allow businesses to place bulbs in shed.

Problems continue to be the ability to attract new participants to these seasonal events. Covanta continues to research the obstacles to participation and possible solutions.

c) Changes made

A "Call List" was devised for generators that brought in bulbs and wished to be notified of future events. Thus, many of the participants to events were repeat participants. Multiple-town type of events were conducted to minimize costs of holding the events as well as advertising the events.

d) Outreach Conducted

Extensive outreach was conducted before each event, including placing 73 newspaper advertisements, use of local options (i.e. town websites, senior citizen newsletters, etc) conducting physical visits to businesses/organizations and the passing out of a total of 1584 notices. The events were also listed on the mercury website- www.keepmercuryfromrising.org. A Contact Reminder Campaign was also waged where, before each event, calls were placed to each contact from the list of contacts developed for each town.

In 2006, over 1584 visits were made by the MSP coordinator to promote this program.

e) Duration of program

This approach was used throughout 2006 in target communities

f) Proposed number of participants

N/A

g) Number of individuals\ organizations contacted

As discussed in section d) above, for Mercury Product Collection Routes, a total of 1584 businesses/organizations were visited to explain this program. Countless phone calls were made to contacts before each event to remind them of the event or figure out another suitable collection option.

3. Thermometer Exchanges

a) Goal of program

The goal of this activity is to help educate people on the dangers of mercury type thermometers, help residents safely recycle these devices, and provide them with safe non mercury replacements.

b) Success\Problems encountered

Since Chapter 39 of the Act of 2002 banned the sale of mercury fever thermometers in Massachusetts, fewer and fewer fever thermometers are being exchanged.

c) Changes made

Program has continued as in past.

d) Outreach conducted

A three- phase approach was used to conduct outreach for this program:

- 1) Special 2 hour “Thermometer Swap Events” were held in 9 contracted communities. 14 local newspaper advertisements were placed for these events.
- 2) Permanent exchange locations were maintained in each of the 15 contracted communities with advertising conducted in various ways including town websites, newspapers, senior center newsletters, etc. 16 newspaper advertisements were placed to advise local residents of this option at these locations.
- 3) Approximately 765 notices were passed out at flu clinics advising attendees of thermometer exchange options.

e) Duration of program

In 2006, Covanta offered this program throughout the year.

f) Proposed number of participants

See b) above

g) Number of individuals\ organizations contacted

- 1) “Thermometer Swap Events” resulted in 43 residents exchanging 62 thermometers
- 2) Permanent exchange locations resulted in the majority of thermometers turned in: 750
- 3) Notices at 17 flu clinics were passed out. Initially 75 notices would be brought to the clinics from which 20-75 were given out as attendance varied greatly.

4. Municipal Reimbursement for Mercury Program Expenses

a) Goal of program

To assist communities with the cost associated with mercury product recycling, Covanta continued to reimburse all Covanta contract communities for the cost incurred in collecting, storing, and recycling of residentially and/or municipally generated mercury containing products (fluorescent bulbs, thermostats, thermometers, etc) collected at HHW days or at permanent facilities (Universal Waste Sheds)

b) Success\Problems encountered

During 2006, many municipal departments and schools contributed bulbs to the program for the first time.

Of the contracted communities, two are still without storage sheds. Haverhill and Wakefield will not accept Covanta-donated buildings at this time.

c) Changes made

An offer to pick up at municipal building/school storage areas (if quantities warranted) as opposed to requiring the bulbs be transported to a transfer station shed has increased collections.

d) Outreach conducted

It has been found beneficial to communicate with municipal contacts frequently to demonstrate the importance of the program and maintain their cooperation. This is done with personal visits, mailings, e-mails, and phone calls to update on current activities in their locale.

e) Duration of program

This program continued throughout the year.

f) Proposed number of participants

N/A

g) Number of individuals\ organizations contacted

Besides the DPW, transfer station personnel, and the 15 recycling coordinators, there are people with various functions within their community that take an interest and take part in assisting the program. Volunteers are included in this list.

5. Thermostat Collection Program

a) Goal of program

A significant portion of mercury contained in the municipal waste stream is entering through the improper management/disposal of mercury containing thermostats. The goal of this activity is to promote thermostat recycling by educating, providing recycling incentives and assisting area tradesmen

b) Success\Problems encountered

In 2006, Covanta was able to increase in the number of supply stores/tradesmen participating in the program. It continues to be difficult to contact these small business men as they generally work out of their homes and are reluctant to identify themselves with a particular municipality.

c) Changes made

In 2006, there was an expansion of the ways used to contact these tradesmen. Records kept show over 500 mailings, numerous telephone calls, use of chambers of commerce directories, town website listings, etc have been used to identify potential thermostat installers.

d) Outreach conducted

With all “Outreach” opportunities, it is mentioned that tradesmen are sought to join our program. This is particularly stressed at presentations before community groups.

e) Duration of program

This program was continued throughout 2006

f) Proposed number of participants

During 2006, the number of participating supply stores/tradesmen increased from 53 to 68.

g) Number of individuals\ organizations contacted

A list of over 350 potential tradesmen is periodically being updated. Efforts to contact and add to participating list is done regularly.

6. School Mercury Cleanouts

a) Goal of program

Goal of this activity was to work with Covanta communities’ school to educate staff, identify mercury products, assist in safe removal of their mercury containing devices and supply non-mercury replacements. To accomplish this, Covanta continued to use the services of Todd Dresser, C.H.M.M. of Cuoco & Cormier to: initially contact school representatives, secure a participation agreement, conduct a mercury inventory, coordinate replacement of mercury products with non mercury items, arrange safe pickup of mercury products and follow up.

b) Success\Problems encountered

The result of the school mercury cleanout in 2006 (7 schools) was 21 thermometers, 2 lbs of elemental mercury, 4 blood pressure units, 1 barometer, and various chemicals containing mercury

c) Changes made

N/A

d) Outreach conducted

Letters explaining the program were sent to everyone identified by recycling coordinators that may have an interest in using this opportunity. This included school administrators, boards of health, etc. Follow up phone calls were also made to keep the program moving forward. Also, a description of this program was included in every outreach presentation.

e) Duration of program

This effort continued throughout 2006.

f) Proposed number of participants

MSP III targeted 21 schools to be serviced during its 2 ½ year period. Because of the loss of the MSP coordinator in 2004, the program started at the beginning of 2005. 10 schools were serviced in 2005 and another 7 in 2006. Those 7 included Reading High & Middle Schools, Salem NH High & Middle Schools, Whittier Vo Tech/Haverhill, Essex Elementary School, and Groton/Dunstable High School.

Among the targeted schools not accepting the invitation to take part as yet were:

Essex Agricultural and Technical Institute of Danvers

Northeast Regional Vocational Tech of Wakefield

Wakefield Memorial High School

Lawrence High School (new High School constructed)

g) Number of individuals\ organizations contacted

Todd Dresser sent many outreach letters to target communities to solicit participation in this recovery program.

8. Facility Level Outreach/Education Efforts

Along with the programs and activities described earlier in this report, Covanta conducted and/or participated in other outreach and educational activities designed to instruct the public on the problems associated with improper management of mercury containing products.

Presentations

Covanta contacted a variety of community groups in our contracted communities to make outreach presentations. 62 local clubs were contacted by mail, phone, or e-mails including Rod & Gun, Rotary, Lions, Kiwanis, Exchange, Elks, and local cable.

Presentations were made to instruct the public on the problems associated with improper management of mercury products as well as review the MSP in regards to their local community. These presentations were made at:

- Ayer Rotary Club
- Lynnfield Rotary Club
- Middleton Kiwanis Club
- Haverhill Kiwanis Club
- Lawrence Kiwanis Club
- Danvers Kiwanis Club

- Haverhill Exchange Club
- Ayer Lions Club
- Essex Lions Club, and
- Groton community cable program

Advertisements

73 advertisements were placed to promote the collection events and the collection route program.

30 advertisements were placed to promote the thermometer collection events

No major changes were made to this program in 2006. Advertisements were used to promote permanent Mercury Product Collection options available in various contract communities.

Educational booths

Covanta sponsored educational booths at numerous environmental and business/Chambers of Commerce events including:

- The Massachusetts Municipal Association Annual Meeting and Trade Show in Boston, MA
- The Merrimack Valley Chamber of Commerce Spring into Business Expo, in Haverhill, MA
- The Merrimack Valley Chamber of Commerce Fall Back to Business Expo, in Andover, MA
- EnviroExpo Conference in Boston, MA
- The North Shore Chamber of Commerce Business Expo in Danvers, MA
- LWV Harvard Flee Market,
- Grotonfest in Groton, MA
- Harvard (Lions) Festival in Harvard, MA
- Harvard (LWV) Flee Market in Harvard, MA
- Melrose DPW Day in Melrose, MA

Bus Advertisements

One of the larger efforts was to continue to purchase advertising space on two school buses in Haverhill. Approved by the MA DEP, Covanta has implemented this activity since 2004. Not only does this advertising present the mercury recycling message in a mobile way, but the majority of the monies goes to the city schools. With this program, these buses not only carry the children (and the message) throughout the city of Haverhill each morning and afternoon, but are then scheduled for supplemental activities during the day. For field trips and school sports events, these buses travel throughout the state as well to neighboring states. In addition, these buses were utilized during the summer season for other programs.

Business/organization site visits in 2006

As described in the programs above, Covanta conducted a number of outreach door to door visits to various businesses and organizations in our contract communities. Before each event, the MSP coordinator would canvass the towns, hand out flyers, remind

people of Covanta's programs, and discuss suitable recycling options. In 2006, the following visits\contacts were made:

Ayer:	163 visits
Danvers:	206 visits
Essex:	27 visits
Groton:	67 visits
Harvard:	Numerous contacts at Harvard Festival and Harvard Flee Market
Haverhill:	180 visits
Lawrence:	66 visits
Littleton:	237 visits
Lynnfield:	36 visits
Melrose:	Over 500 school children visited during Melrose DPW Day
Middleton:	188 visits
Reading:	112 visits
Stoneham:	95 visits
Wakefield:	176 visits
Salem, NH	31 visits

MSP IV Development outreach

In March 2006, Covanta held a series of meetings for the purpose of getting feedback from residents, businesses and stakeholders on the success of MSP III and suggestions for changes to the next two year plan, MSP IV. Hotel conference rooms were hired for 2 hour periods in centrally located communities:

- Haverhill for the nearby cities of Lawrence, Salem, NH
- Wakefield for the nearby towns of Melrose, Reading, and Stoneham
- Danvers for the nearby towns of Essex, Middleton and Lynnfield
- Devens for the nearby towns of Ayer, Groton, Harvard, and Littleton

Newspaper advertisements were placed in all 15 communities describing the Material Separation Plan and inviting comments on improvements to the program. Also letters, faxes, and phone calls were made to 92 stakeholders. There were 18 attendees at the meetings.

8. Regional Outreach/Education: IWSA Component See Attachment 1.

Summary

Overall, the results of MSPIII for 2006 were quite good. Over 111 lbs of mercury were diverted from the waste stream. A comparison of amounts of mercury products collected in 2006 would have showed increases in all categories over 2005 except for the following unique occurrences:

- In June 2005, a Wakefield resident contributed 50.79lbs of elemental mercury from gas testing equipment used in the 1940's.
- In Aug 2005, the Lynnfield Pharmacy contacted Covanta. A local animal hospital had brought 2 large heavy boxes containing 6,986 mercury thermometers (unused)

Increases in amounts of mercury products collected for recycle were recognized in the following areas:

	2005	2006
Fluorescent bulbs:	141,247 ln ft	186,363 ln ft
U-Tubes	3,233	4,411
HID	623	978
Blood Pressure Instr.	7	14
Thermostats	931	968

In addition, 959 thermometers, 24 electrical switches, 90 lbs of elemental mercury and 3.3 lbs from miscellaneous items were also collected. See Sheets II, III and IV for more information on the results of 2006.

ATTACHMENT 1
Integrated Waste Services Association (IWSA)
Materials Separation Plan Activities
Annual Report on the Results of the Mercury Recovery Program
RY 2006

Integrated Waste Services Association (IWSA)

Materials Separation Plan Activities

Annual Report on the Results of the Mercury Recovery Program

RY 2006

1. Introduction

The Integrated Waste Services Association's activities in support of Massachusetts' Waste-to-Energy Facilities' Materials Separation Plan for 2006 continues the direction set in prior years. This report describes the activities involved in the design, implementation and operation of IWSA's Program in support of the five waste-to-energy plants operating in Massachusetts and their Mercury Recovery Programs (MRP). Each facilities' MRP is community focused, locally based and operated; and the IWSA activities are designed to support in a coordinated fashion the MSPs on a regional basis.

IWSA Regional Program activities for 2006 consisted of the following elements:

- Radio Advertising for "Keep Mercury From Rising"
- Evaluation & Analysis of the "Keep Mercury From Rising" campaign
- Revision & Update of Website www.keepmercuryfromrising.org
- Availability of print and video materials to facilities, the public and media

2. Regional Education Program "Keep Mercury From Rising"

The Integrated Waste Services Association coordinated the regional education/outreach program for five Massachusetts' waste-to-energy facilities including facilities located in Saugus, North Andover, Millbury, Haverhill, and SEMASS.

a) Objectives

In 2006, the Regional Outreach Plan supported individual facility programs by the continued promotion of the media campaign, "Keep Mercury from Rising". This campaign included two waves of radio advertisements designed to reach the broadest possible audience. The campaign used targeted advertising educating the listeners about the concerns related to mercury. The advertisements also encouraged residents to contact their local health departments to receive more information about mercury and find out where in their communities they could dispose of mercury containing devices.

The objectives for 2006 were met and included the following:

- The Regional Outreach Program continued to raise awareness about mercury-containing products in the home and the proper handling and disposal of these products;
- The Program provided information and promote local recycling events;

- The Program continued to build an integrated communications program that leveraged opportunities for incremental, free media, and worked synergistically with the efforts of individual waste-to-energy facilities.

b) Tactics

A public survey was completed in mid-2006 measuring the effectiveness of the educational campaign “Keep Mercury From Rising.” Findings from this survey guide the development of the Regional Program. The website, www.keepmercuryfromrising.org, continues to be more user-friendly, and includes more contact information and contractor material, as well as continuing to provide information and assistance with recycling of mercury-containing products to the general public. IWSA produced five videos in 2003 for each waste-to-energy plant, and these videos are available on the website. The videos show the unique and effective programs now in place to keep mercury containing products out of the waste stream.

i) Survey

The effectiveness of the regional education campaign is in large part measured by an annual research survey. The polling is designed to measure positive changes in public attitudes and behaviors, as well as the receptiveness of the message. The survey questionnaire was in the field during June 2006, and consisted of 400 completes, providing a 95% confidence level. IWSA polling has measured some marked improvements in mercury awareness, responsibility, and actions – the likes of which we have not seen since 2001. For example, fish advisory mercury awareness (87%) scored its highest total in six years. Recycling participation (86%), also a six-year high, topped its 2004 high of 83 percent. Owners of thermometers were deemed most responsible for the safe disposal of a mercury thermometer – another six year high – when compared to manufacturers, waste companies, and the government. A growing number of people (41% today vs. 16% in 2001) would drive to a mercury collection center to properly dispose of a mercury product. Glass thermometer awareness reached a three-year high at 91%.

Circular wall thermostats made the most significant year-over-year jump (65% today vs. 58% in 2005) which may be due in part to the proactive initiatives of IWSA members who have spearheaded the awareness campaigns at the grassroots level. Fluorescent light bulbs also scored significantly higher mercury awareness than the 2001 levels (46% today vs. 29% in 2001). Fifty-six percent of respondents would pay \$33-\$45 to replace a \$30 circular wall thermostat with a non-mercury replacement; an additional 23% - another six year high - would pay at least double (\$60 or more) for the non-mercury replacement. In addition, doctors were the most trusted source for health and environmental information.

ii) Advertising

Analyzing past results, it was determined that the radio ads reached a greater target audience than the print advertisements in newspapers. Rather than

purchasing one wave of radio advertisements, IWSA purchased two separate three-week radio buys in 2006 and advertised on radio stations that broadened our geographic outreach. Radio is a targeted medium that provides cost-efficient mass communication and built frequency of message delivery.

The first three-week radio buy was implemented May 22 through June 18, 2006. Markets targeted by the radio buy were Boston, Worcester, New Bedford, and Cape Cod. In order to maximize the dissemination of the message, IWSA purchased another three-week radio buy that aired September 11 through October 1, 2006. Based on the results of the survey conducted after the radio ad, we believe the plan was successful in increasing public awareness. By transferring the budget for print advertising to a second radio wave almost five months later, we have broadened the opportunities for a successful campaign.

iii) Web-based Tool

The website, www.keepmercuryfromrising.org, is user-friendly and provides additional information:

The site provides navigation under the masthead and incorporates information in the following categories:

Home – includes background on Keep Mercury From Rising and information on calling 1-866-9MERCURY for more information about safe disposal options.

Drop-off sites – provides information on where to drop-off mercury containing items.

Spills – provides a variety of information on actions one should take in the event of a mercury spill.

FAQs –provides answers to five common questions.

Video/Audio – provides the five videos developed by the facilities as well as an audio file of the advertisement that aired for six weeks in 2005.

Links – links were proactively sought and added to this page and efforts were made to increase the number of other website that link to <http://www.keepmercuryfromrising.org>.

Contractors - contains useful information and links for sources of mercury related information.

iv) Print Materials

IWSA continued to make available education brochures and print information developed in 2003. The basic “Keep Mercury From Rising” message is consistent with media formats.

v) Video

The five-minute “Keep Mercury from Rising” educational video was completed for each facility in 2003. The video explains the need to recycle mercury-containing products and the efforts undertaken by the state of Massachusetts and waste-to energy facilities to reduce the amount of mercury entering the environment.

The video now is being used at the five waste-to-energy facilities for educational purposes during tours and other meetings. Copies of the video have been made available to local cable access television stations and a “B-roll” of visuals and sound is available for media covering MSP events. Copies of the video also have been given to local public officials to be shown at meetings, schools, senior citizen centers, and other organizations that would benefit from viewing the video. As noted above, the video also may be viewed at the website.

c) 2006 Expenditures

Activity	Actual Expenditure
Survey	\$18,000
Media Buys	\$146,241
Website	\$132
Print	\$0
Video	\$0
	<hr/>
	\$164,373